

M67001.AR.006981  
MCB CAMP LEJEUNE  
5090.3a

VALIDATED DATA PACKAGE, A501571, MCB CAMP LEJEUNE NC  
5/22/2015  
ENVIRONMENTAL DATA SERVICES

**DATA VALIDATION SUMMARY REPORT  
MCB CAMP LEJEUNE, NORTH CAROLINA**

Client: CH2M HILL, Inc., Virginia Beach, Virginia  
 SDG: A501571  
 Laboratory: Environmental Conservation Laboratories, Inc., Orlando, Florida  
 Site: MCB Camp Lejeune, LTM FY2015 Q2, Sites 78/94, CTO-WE86  
 Date: May 22, 2015

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	IR78-GW63-15A	A501571-01	Water
1RE†	IR78-GW63-15ARE	A501571-01RE	Water
2	IR78-GW63D-15A	A501571-02	Water
2REβ	IR78-GW63D-15ARE	A501571-02RE	Water
3	IR78-GW64-15A	A501571-03	Water
3REβ	IR78-GW64-15ARE	A501571-03RE	Water
4	IR78-GW73-15A	A501571-04	Water
4RE†	IR78-GW73-15ARE	A501571-04RE	Water
5	IR78-GW73D-15A	A501571-05	Water
5RE†	IR78-GW73D-15ARE	A501571-05RE	Water
6*	IR78-GW74-15A	A501571-06	Water
6RE*	IR78-GW74-15ARE	A501571-06RE	Water
7*	IR78-GW83IW-15A	A501571-07	Water
8*	IR78-GW86DW-15A	A501571-08	Water
8MS*	IR78-GW86DW-15AMS	A501571-08MS	Water
8MSD*	IR78-GW86DW-15AMSD	A501571-08MSD	Water
9*	IR78-GW105MCH-15A	A501571-09	Water
10*	IR78-GW108UCH-15A	A501571-10	Water
10RE*	IR78-GW108UCH-15ARE	A501571-10RE	Water
11*	IR78-GW112MCH-15A	A501571-11	Water
11RE*	IR78-GW112MCH-15ARE	A501571-11RE	Water
12*	IR78-GW128MCH-15A	A501571-12	Water
13*	IR78-GW129LCH-15A	A501571-13	Water
13RE*	IR78-GW129LCH-15ARE	A501571-13RE	Water
14*	IR78-RW05-15A	A501571-14	Water
15	IR78-RW08-15A	A501571-15	Water
15RE†	IR78-RW08-15ARE	A501571-15RE	Water
16*	IR78-RW09R-15A	A501571-16	Water
16RE*	IR78-RW09R-15ARE	A501571-16RE	Water
17*	IR78-RW15-15A	A501571-17	Water
17MS*	IR78-RW15-15AMS	A501571-17MS	Water
17MSD*	IR78-RW15-15AMSD	A501571-17MSD	Water
17RE*	IR78-RW15-15ARE	A501571-17RE	Water
18	UST1613-GW03-15A	A501571-18	Water
18RE†	UST1613-GW03-15ARE	A501571-18RE	Water
19*	UST1613-GW13-15A	A501571-19	Water

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
19RE*	UST1613-GW13-15ARE	A501571-19RE	Water
20	UST1613-GW17-15A	A501571-20	Water
20REβ	UST1613-GW17-15ARE	A501571-20RE	Water
21*	IR94-GW02IW-15A	A501571-21	Water
22*	IR94-GW03IW-15A	A501571-22	Water
23*	IR78-TB-031515-3	A501571-23	Water
24	IR78-GW22-15A	A501571-24	Water
24RE†	IR78-GW22-15ARE	A501571-24RE1	Water

\* - VOCs only

† - Metals only

β - VOCs and Metals only

A full data validation was performed on the analytical data for twenty-three water samples and one aqueous trip blank sample collected on March 13-16, 2015 by CH2M HILL at MCB Camp Lejeune in North Carolina. The samples were analyzed under the Environmental Protection Agency (USEPA) "Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions".

Specific method references are as follows:

*Analysis*

VOCs

Metals/Hg

*Method References*

USEPA SW-846 Method 8260B

USEPA SW-846 Methods 6020A/7470A

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the USEPA National Functional Guidelines for Organic and Inorganic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review," June 2008;
- The USEPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review," January 2010;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

*Organics*

- Holding times and sample preservation
- Gas Chromatography/Mass Spectroscopy (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Tentatively Identified Compounds (TICs)

- Field Duplicate sample precision

### ***Inorganics***

- Holding times and sample preservation
- ICP/MS Tuning
- Initial and continuing calibration verifications
- Method blank and field blank contamination
- ICP Interference Check Sample
- Laboratory Control Sample (LCS) recoveries
- Matrix Spike Analysis
- Duplicate Sample Analysis
- ICP Serial Dilution
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

### **Overall Usability Issues:**

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

### **Volatile Organic Compounds (VOC)**

#### **Holding Times**

- All samples were analyzed within 14 days for preserved water samples except the following.

Sample	Date Sampled	Date Analyzed	# of Days	Qualifier
2RE	03/14/15	04/07/15	24	J/UJ
6RE	03/14/15	04/07/15	24	J/UJ
10RE	03/13/15	04/02/15	20	J/UJ
11RE	03/13/15	04/07/15	25	J/UJ
13RE	03/13/15	04/07/15	25	J/UJ
16RE	03/13/15	04/07/15	25	J/UJ
17RE	03/14/15	04/07/15	24	J/UJ
19RE	03/13/15	04/07/15	25	J/UJ
20RE	03/14/15	04/07/15	24	J/UJ

## GC/MS Tuning

- All criteria were met.

## Initial Calibration

- All %RSD and/or correlation coefficients and mean RRF criteria were met.

## Continuing Calibration

- All %D and RRF criteria were met.

## Method Blank

- The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
5C24024-BLK1	Methylene Chloride	4.8	U	8

## Field Blank

- Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
IR78-TB-031515-3	None - ND	-	-	-
IR78-EB-031515-GW	None - ND	-	-	-

## Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values except the following.

Sample ID	Surrogate	%R	Qualifier
2	Toluene-d8	88%	J/UJ
	4-Bromofluorobenzene	84%	
3	Dibromofluoromethane	120%	J - Positive Results
	Toluene-d8	113%	
3RE	Toluene-d8	87%	J/UJ
6RE	Toluene-d8	88%	None - See HT
10	4-Bromofluorobenzene	84%	J/UJ
11	Toluene-d8	87%	J/UJ
13	Toluene-d8	86%	J/UJ
13RE	Toluene-d8	88%	None - See HT
16	Toluene-d8	86%	J/UJ

Sample ID	Surrogate	%R	Qualifier
19	Toluene-d8	87%	J/UJ
20RE	Toluene-d8	88%	None - See HT
23	Toluene-d8	114%	None - Sample ND

### **Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries**

- The MS/MSD samples exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS %R/MSD %R/ RPD	Qualifier
8	cis-1,2-Dichloroethene	72%/OK/OK	J/UJ
	Benzene	71%/73%/OK	J/UJ
	Toluene	68%/OK/OK	J/UJ
	1,2-Dibromo-3-chloropropane	132%/156%/OK	None - Sample ND
	Vinyl Chloride	OK/OK/33	None for RPD alone
	trans-1,2-Dichloroethene	OK/OK/25	None for RPD alone
17	1,1-Dichloroethene	OK/54%/30	J/UJ
	Methylene Chloride	OK/63%/OK	J/UJ
	trans-1,2-Dichloroethene	73%/57%/25	J/UJ
	cis-1,2-Dichloroethene	63%/49%/OK	J/UJ
	1,1-Dichloroethane	73%/57%/25	J/UJ
	1,2-Dichloroethane	OK/68%/OK	J/UJ
	Benzene	48%/29%/21	J/UJ
	Trichloroethene	72%/53%/29	J/UJ
	Toluene	-72%/-108%/OK	J/R
	Tetrachloroethene	OK/58%/32	J/UJ
	Ethylbenzene	11%/-12%/OK	J/R
	m,p-Xylenes	0.4%/-28%/OK	J/R
	o-Xylene	23%/-4%/OK	J/R
	Isopropylbenzene	69%/48%/31	J/UJ

### **Laboratory Control Samples**

- The LCS samples exhibited acceptable percent recoveries (%R) except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
5C20013-BS1	1,1-Dichloroethene	132%	None	All Associated ND
	trans-1,2-Dichloroethene	132%	None	
	1,1-Dichloroethane	127%	None	
	Trichloroethene	125%	None	
5C25015-BS1	1,2-Dibromo-3-chloropropane	135%	None	All Associated ND
5C24024-BS1	Methylene Chloride	170%	None	All ND or already qualified
	Trichloroethene	131%	None	
	1,2-Dibromo-3-chloropropane	155%	None	
5D07016-BS1	1,2-Dibromo-3-chloropropane	144%	None	All Associated ND

### **Internal Standard (IS) Area Performance**

- All internal standards met response and retention time (RT) criteria.

## Target Compound Identification

- All mass spectra and quantitation criteria were met.

## Compound Quantitation

- Several samples exhibited surrogate recoveries outside of QC limits. The samples were reanalyzed outside of holding time and qualified estimated (J/UJ). See Form Is for which results to use for reporting purposes.

## Tentatively Identified Compounds (TICs)

- TICs were not reported.

## Field Duplicate Sample Precision

- Field duplicate results are summarized below.

VOCs				
Compound	IR78-GW63-15A ug/L	IR78-GW63D-15A ug/L	RPD	Qualifier
cis-1,2-Dichloroethene	7.8	7.6	3%	None
Trichloroethene	0.97	1.0U	NC	
1,2-Dichloroethene	7.8	7.6	3%	

VOCs				
Compound	IR78-GW73-15A ug/L	IR78-GW73D-15A ug/L	RPD	Qualifier
Trichloroethene	1.0U	0.93	NC	None
Tetrachloroethene	6.7	7.9	16	
Isopropylbenzene	1.8	3.0	50%	

## Metals & Mercury

### Holding Times

- All samples were prepared and analyzed within 28 days for mercury and 180 days for all other metals.

### Initial Calibration Verification

- All initial calibration criteria were met.

### Continuing Calibration Verification

- All continuing calibration criteria were met except the following.

CCV	Compound	%R	Qualifier	Affected Samples
CCV7	Antimony	89%	J/UJ	1, 2, 3, 15, 24
CCV2	Iron	113%	J	4, 5, 18, 20, 24
CCV5	Potassium	111%	None	See MS/MSD
CCV6	Sodium	113%	None	See MS/MSD

### Method Blank

- The method blanks were free of contamination.

### Field Blank

- The field QC samples exhibited the following contamination.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
IR78-EB-031515-GW	Calcium	117	None	All >10X
	Copper	3.15	U	1, 2, 15, 18, 20, 24
	Manganese	0.341	None	All >10X
	Nickel	0.906	U	18, 24
	Sodium	215	None	All >10X
	Zinc	7.73	U	1, 2, 3, 5, 18, 20

### ICP Interference Check Sample

- The ICP interference check sample exhibited acceptable %R values.

### Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.

### Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD sample exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS %R/MSD %R/ RPD	Qualifier	Affected Samples
REFERENCE	Calcium	138%/152%/OK	None	4X Rule Applies
	Iron	185%/305%/OK	None	4X Rule Applies
	Magnesium	120%/122%/OK	J	Positive results in all Samples
	Potassium	131%/130%/OK	J	
	Sodium	118%/127%/OK	J	

### ICP Serial Dilution

- ICP serial dilution percent differences (%D) were within acceptance limits except the following.

ICP Sample ID	Compound	%D	Qualifier	Affected Samples
REFERENCE	Sodium	36%	None	See MS/MSD

### Compound Quantitation

- Several samples were reanalyzed for various reasons and several compounds were reported in the reanalysis. Please refer to the Form Is for which sample results to use for reporting purposes.

### Field Duplicate Sample Precision

- Field duplicate results are summarized below.

Metals				
Compound	IR78-GW63-15A ug/L	IR78-GW63D-15A ug/L	RPD	Qualifier
Aluminum	269	266	1%	None
Arsenic	5.15	4.88	5%	
Barium	18.7	18.5	1%	
Beryllium	1.28	1.30	2%	
Cadmium	0.422	0.391	8%	
Calcium	85500	82300	4%	
Chromium	1.07	1.61	40%	
Cobalt	22.0	22.6	3%	
Iron	5800	5700	2%	

Metals				
Compound	IR78-GW63-15A ug/L	IR78-GW63D-15A ug/L	RPD	Qualifier
Magnesium	5920	5850	1%	None
Manganese	300	296	1%	
Nickel	22.1	21.8	1%	
Potassium	3660	3650	0%	
Sodium	14900	14600	2%	
Thallium	0.749	0.738	1%	
Vanadium	0.520	0.504	3%	

Metals				
Compound	IR78-GW73-15A ug/L	IR78-GW73D-15A ug/L	RPD	Qualifier
Aluminum	195	202	4%	None
Barium	41.8	42.1	1%	
Beryllium	0.122	0.124	2%	
Calcium	5460	5440	0%	
Iron	226	218	4%	
Lead	2.37	2.37	0%	
Magnesium	1480	1520	3%	
Manganese	12.8	13.0	2%	
Potassium	920	989	7%	
Sodium	2600	2650	2%	
Vanadium	0.372	0.334	11%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:

Nancy Weaver

Dated: 5/24/15

Nancy Weaver  
Senior Chemist

## **Data Qualifiers**

- U = The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- UJ = The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- J = The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- J+ = The result is an estimated quantity, but the result may be biased high.
- J- = The result is an estimated quantity, but the result may be biased low.
- R = The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Dataset File C:\Elandata\DataSet\Apr 2015\040215a\A501571-02RE1#20.056

Tuning File C:\Elandata\Tuning\Apr 2015\040215.tun

Optimization C:\Elandata\Optimize\Apr 2015\040215.dac

Concentration Results

	Analyte	Mass	Meas.	Inte	Net	Intens.	Conc.	Mea	Conc.	SD	Conc.	RSD	Sample	Unit
-	Na	23	750597.4	3.214525	729.1335	20.3165	2.7864						ug/L	
	K	39	220715.3	0.819887	146.2284	5.0832	3.4762						ug/L	
>	Sc	45	233125.9	233125.9									ug/L	
>	In	115	132162.1	132162.1									ug/L	
-	Fe	56	301762.9	2.281366	285.0788	3.2869	1.153						ug/L	

QC Calculated Values

Analyte	Mass	QC Std %	R Int Std %	R Spike %	Re Dilution %	Dup. Rel. %	Diff
-	Na	23					
	K	39					
>	Sc	45		99.011			
>	In	115		95.876			
-	Fe	56					

QC Out of Limits

Measurem	Analyte	Mass	Out of Limits Message
QC Action			

QC Action | No QC out of limits detected

SOP MET-15 - Summary Report

Sample ID: A501571-03RE1#30

EDS + 3RE

Sample Date Thursday, April 02, 2015 14:17:36

Sample Type Sample

Instrument Description: OMICPMS1 S/N W0540312H

Number of 3

Sample File C:\Elandata\Sample\Apr 2015\040215a.sam

Method File C:\Elandata\Method\Apr 2015\040215a\_RP1\_DOD.mth

Dataset File C:\Elandata\DataSet\Apr 2015\040215a\A501571-03RE1#30.057

Tuning File C:\Elandata\Tuning\Apr 2015\040215.tun

Optimization C:\Elandata\Optimize\Apr 2015\040215.dac

Concentration Results

	Analyte	Mass	Meas.	Inte	Net	Intens.	Conc.	Mea	Conc.	SD	Conc.	RSD	Sample	Unit
-	Na	23	556992.3	2.405281	538.5689	9.3796	1.7416						X 30 = 16,157 $\approx$ 16200	ug/L
	K	39	209146.7	0.778605	137.1387	7.4498	5.4323							ug/L
>	Sc	45	231021.1	231021.1										ug/L
>	In	115	129010.5	129010.5										ug/L
-	Fe	56	145483.8	1.12554	140.2433	1.1197	0.7984						X 30 = 4,210	ug/L

QC Calculated Values

Analyte	Mass	QC Std %	R Int Std %	R Spike %	Re Dilution %	Dup. Rel. %	Diff
-	Na	23					
	K	39					
>	Sc	45		98.117			
>	In	115		93.59			
-	Fe	56					

QC Out of Limits

## Quantitation Report (QT Reviewed)

P.343

Data File : C:\HPCHEM\1\DATA\032415\2CS012.D  
 Acq On : 24 Mar 2015 11:44  
 Sample : A501571-09  
 Misc : 10  
 MS Integration Params: rteint.p  
 Quant Time: Mar 25 5:36 2015

Vial: 12  
 Operator: NMC  
 Inst : OVGCMS2  
 Multiplr: 1.00

Quant Results File: 020615.RES

Quant Method : C:\HPCHEM\1\METHODS\020615.M (RTE Integrator)  
 Title : ENCO SOPVGCMS/05;element cal 1502029  
 Last Update : Wed Mar 04 08:10:07 2015  
 Response via : Initial Calibration  
 DataAcq Meth : 8260S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene (IS)	10.98	168	382695	50.00	ug/L	-0.02
38) 1,4-Difluorobenzene (IS)	11.56	114	647186	50.00	ug/L	-0.01
58) Chlorobenzene-d5 (IS)	14.23	117	587950	50.00	ug/L	-0.02
82) 1,4-Dichlorobenzene-d4 (IS)	16.50	152	246101	50.00	ug/L	-0.02

## System Monitoring Compounds

30) Dibromofluoromethane	10.57	113	227509	48.80	ug/L	-0.02
Spiked Amount 50.000	Range 53 - 146		Recovery	=	97.60%	
44) 1,2-Dichloroethane-d4	11.14	65	180001	48.42	ug/l	-0.02
Spiked Amount 50.000	Range 45 - 174		Recovery	=	96.84%	
56) D8-Toluene	12.84	98	710128	45.29	ug/L	-0.01
Spiked Amount 50.000	Range 41 - 146		Recovery	=	90.58%	
77) Bromofluorobenzene	15.33	95	261561	45.80	ug/L	-0.02
Spiked Amount 50.000	Range 41 - 142		Recovery	=	91.60%	

## Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)	Qvalue
2) Dichlorodifluoromethane	0.00	85		N.D.			
3) Chloromethane	0.00	50		N.D.			
4) Vinyl Chloride	0.00	62		N.D.			
5) Bromomethane	0.00	94		N.D. d			
6) Chloroethane	0.00	64		N.D.			
7) Trichlorofluoromethane	0.00	101		N.D.			
8) Trichlorotrifluoroethane	0.00	101		N.D.			
9) acrolein	0.00	56		N.D. d			
10) Acetone	0.00	43		N.D. d			
11) 1,1-Dichloroethene	7.60	96	1278	0.30	ug/L #	84	
12) 3-Chloropropene	0.00	76		N.D.			
13) Acetonitrile	0.00	41		N.D.			
14) Iodomethane	0.00	142		N.D.			
15) Carbon disulfide	0.00	76		N.D.			
16) Methylene Chloride	0.00	84		N.D. d			
17) Methyl tert-butyl ether	0.00	73		N.D.			
18) Acrylonitrile	0.00	53		N.D.			
19) T-1,2-Dichloroethene	8.67	96	932	0.19	ug/L	73	
20) Isopropyl Ether	0.00	45		N.D.			
21) C-1,2-Dichloroethene	10.10	96	37703	6.82	ug/L	98	
22) 1,1-Dichloroethane	0.00	63		N.D.			
23) Vinyl Acetate	0.00	43		N.D.			
24) Chloroprene	0.00	53		N.D.			
25) 2-Butanone	0.00	72		N.D. d			
26) Propionitrile	0.00	54		N.D. d			
27) 2,2-Dichloropropane	0.00	77		N.D.			
28) Methacrylonitrile	0.00	67		N.D. d			
29) Chloroform	0.00	83		N.D.			
31) Dibromofluoromethane	10.57	113	227509	48.80	ug/L	100	
32) Bromochloromethane	0.00	128		N.D.			
33) 1,1,1-Trichloroethane	0.00	97		N.D.			
34) 1,1-Dichloropropene	0.00	75		N.D.			
35) Diethyl ether	0.00	59		N.D. d			
36) Methyl Acetate	0.00	74		N.D.			
37) Cyclohexane	0.00	56		N.D.			
39) Methyl Cyclohexane	0.00	55		N.D. d			
40) Carbon Tetrachloride	0.00	117		N.D.			
41) 1,2-Dichloroethane	0.00	62		N.D.			
42) Benzene	0.00	78		N.D.			
43) Isobutyl Alcohol	0.00	43		N.D. d			
45) 1,2-Dichloroethane-d4	11.14	65	180001	48.42	ug/l #	89	

(#) = qualifier out of range (m) = manual integration  
 2CS012.D 020615.M Wed Mar 25 08:00:48 2015

342 of 975

Page 1



## ORGANIC ANALYSIS DATA SHEET

IR78-GW63-15A

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-01 File ID: 2CT019.D

Sampled: 03/14/15 15:30 Prepared: 03/25/15 00:00 Analyzed: 03/25/15 14:46

Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5C25015 Sequence: AA33136 Calibration: 1502029 Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	7.8		0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	0.97	J	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	7.8		0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	45	90	89 - 112	
4-Bromofluorobenzene	50.0	47	93	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	372852	10.98	360813	11	
1,4-Difluorobenzene	646538	11.55	613683	11.57	
Chlorobenzene-d5	578508	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	252144	16.5	257796	16.52	

\* Values outside of QC limits

MW 5/21/15

# ORGANIC ANALYSIS DATA SHEET

EPA 8260B

Z  
IR78-GW63D-15A

Laboratory:	<u>ENCO Orlando</u>	SDG:	<u>A501571-CTOWE86</u>
Client:	<u>CH2M Hill, Inc. (CH025)</u>	Project:	<u>CTO-WE86 MCB Camp Lejeune Site 78</u>
Matrix:	<u>Ground Water</u>	Laboratory ID:	<u>A501571-02</u>
Sampled:	<u>03/14/15 15:35</u>	Prepared:	<u>03/24/15 00:00</u>
Solids:		Preparation:	<u>EPA 5030B MS</u>
Batch:	<u>5C24024</u>	Sequence:	<u>AA33117</u>
		Calibration:	<u>1503088</u>
		Instrument:	<u>OVGCMS1</u>

*Use  
carefully's  
results*

*SSL*

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 <i>uj</i>	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	5.6 <i>J</i>		0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 <i>uj</i>	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	5.6 <i>J</i>		0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	40	81	80 - 119	
Toluene-d8	50.0	44	88	89 - 112	*
4-Bromofluorobenzene	50.0	42	84	85 - 114	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	167013	11.46	189013	11.47	
1,4-Difluorobenzene	310638	12.03	339774	12.04	
Chlorobenzene-d5	277703	14.71	244965	14.72	
1,4-Dichlorobenzene-d4	84537	17.08	91047	17.1	

\* Values outside of QC limits

*no Shells*

## ORGANIC ANALYSIS DATA SHEET

IR78-GW63D-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-02RE1 File ID: 2DB011.D  
 Sampled: 03/14/15 15:35 Prepared: 04/07/15 00:00 Analyzed: 04/07/15 12:37  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: SD07016 Sequence: AA33335 Calibration: 1502029 Instrument: QVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 <u>UJ</u>	<u>UQ</u>	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0 <u>J</u>	<u>UQ</u>	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0 <u>J</u>	<u>UQ</u>	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0 <u>J</u>	<u>UQ</u>	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	7.6 <u>J</u>	<del>UQ</del>	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 <u>UJ</u>	<u>UQ</u>	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0 <u>J</u>	<u>UQ</u>	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 <u>J</u>	<u>UQ</u>	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0 <u>J</u>	<u>UQ</u>	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 <u>J</u>	<u>UQ</u>	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0 <u>J</u>	<u>UQ</u>	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0 <u>J</u>	<u>UQ</u>	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0 <u>J</u>	<u>UQ</u>	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0 <u>J</u>	<u>UQ</u>	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0 <u>J</u>	<u>UQ</u>	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	7.6 <u>J</u>	<del>UQ</del>	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	95	80 - 119	
Toluene-d8	50.0	45	89	89 - 112	
4-Bromofluorobenzene	50.0	45	90	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	358884	10.97	360813	11	
1,4-Difluorobenzene	613572	11.54	613683	11.57	
Chlorobenzene-d5	563086	14.22	591959	14.25	
1,4-Dichlorobenzene-d4	241922	16.49	257796	16.52	

\* Values outside of QC limits

MW 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-GW64-15A  
3

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-03 File ID: 5CO016.D

Sampled: 03/14/15 17:00 Prepared: 03/20/15 00:00 Analyzed: 03/20/15 13:41

Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5C20013 Sequence: AA33073 Calibration: 1503031 Instrument: OVGCMS5

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	UQ	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	2.5 <i>J</i>	Q	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	UQ	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	2.5 <i>J</i>		0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	60	120	80 - 119	*
Toluene-d8	50.0	56	113	89 - 112	*
4-Bromofluorobenzene	50.0	53	105	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	605200	11.482	591935	11.466	
1,4-Difluorobenzene	1202921	12.181	1054899	12.173	
Chlorobenzene-d5	1620384	15.623	1238789	15.607	
1,4-Dichlorobenzene-d4	954192	18.59	673258	18.574	

\* Values outside of QC limits

mu 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-GW64-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-03RE1 File ID: 1CS015.D  
 Sampled: 03/14/15 17:00 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 13:38  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C24024 Sequence: AA33117 Calibration: 1503088 Instrument: OVGCMS1

*Use original results*

SSL

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 UJ	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0 U	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0 UQ	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0 U	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	1.5 J	J	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 UJ	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0 U	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 U	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0 UQ	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 U	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0 U	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0 U	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0 U	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0 UQ	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0 U	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	1.5 J	J	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	41	82	80 - 119	
Toluene-d8	50.0	43	87	89 - 112	*
4-Bromofluorobenzene	50.0	45	90	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	152236	11.45	189013	11.47	
1,4-Difluorobenzene	284035	12.03	339774	12.04	
Chlorobenzene-d5	246260	14.71	244965	14.72	
1,4-Dichlorobenzene-d4	75033	17.09	91047	17.1	

\* Values outside of QC limits

new sizes

## ORGANIC ANALYSIS DATA SHEET

IR78-GW73-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-04 File ID: 2CT020.D

Sampled: 03/14/15 08:50 Prepared: 03/25/15 00:00 Analyzed: 03/25/15 15:15

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: 5C25015 Sequence: AA33136 Calibration: 1502029 Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	6.7		0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	1.8	J	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	47	93	89 - 112	
4-Bromofluorobenzene	50.0	45	91	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	369852	10.98	360813	11	
1,4-Difluorobenzene	622218	11.55	613683	11.57	
Chlorobenzene-d5	585632	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	252852	16.5	257796	16.52	

\* Values outside of QC limits

new S12115

## ORGANIC ANALYSIS DATA SHEET

IR78-GW73D-15A  
5

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-05 File ID: 5CU006.D

Sampled: 03/14/15 08:55 Prepared: 03/26/15 00:00 Analyzed: 03/26/15 09:20

Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5C26010 Sequence: AA33158 Calibration: 1503091 Instrument: OVGCMS5

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	0.93	J	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	7.9		0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	3.0		0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	UQ	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	55	110	89 - 112	
4-Bromofluorobenzene	50.0	50	100	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	537087	11.482	646118	11.491	
1,4-Difluorobenzene	887722	12.181	1132565	12.189	
Chlorobenzene-d5	875279	15.624	1071316	15.632	
1,4-Dichlorobenzene-d4	460456	18.59	548927	18.606	

\* Values outside of QC limits

MS12115

## ORGANIC ANALYSIS DATA SHEET

IR78-GW74-15A  
6

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-06 File ID: 5CU007.D

Sampled: 03/14/15 10:00 Prepared: 03/26/15 00:00 Analyzed: 03/26/15 09:51

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: 5C26010 Sequence: AA33158 Calibration: 1503091 Instrument: OVGCMS5

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	100	<100	UD	71	100	200
75-35-4	1,1-Dichloroethene	100	<100	UD	94	100	200
75-09-2	Methylene Chloride	100	<500	UD	200	500	1000
156-60-5	trans-1,2-Dichloroethene	100	<100	UD	73	100	200
156-59-2	cis-1,2-Dichloroethene	100	<100	UD	53	100	200
75-34-3	1,1-Dichloroethane	100	<100	UD	62	100	200
107-06-2	1,2-Dichloroethane	100	<100	UD	63	100	200
71-43-2	Benzene	100	280	D	71	100	200
79-01-6	Trichloroethene	100	<100	UD	89	100	200
108-88-3	Toluene	100	6200	D	72	100	200
127-18-4	Tetrachloroethene	100	<100	UD	76	100	200
100-41-4	Ethylbenzene	100	1500	D	69	100	200
98-82-8	Isopropylbenzene	100	<100	UD	67	100	200
96-12-8	1,2-Dibromo-3-chloropropane	100	<500	UD	96	500	1000
1330-20-7	Xylenes (Total)	100	6000	DQ	130	200	400
540-59-0	1,2-Dichloroethene (Total)	100	<100	UD	73	100	200

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	46	92	80 - 119	
Toluene-d8	50.0	50	99	89 - 112	
4-Bromofluorobenzene	50.0	47	95	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	560967	11.482	646118	11.491	
1,4-Difluorobenzene	974818	12.181	1132565	12.189	
Chlorobenzene-d5	910343	15.623	1071316	15.632	
1,4-Dichlorobenzene-d4	476930	18.59	548927	18.606	

\* Values outside of QC limits

MW S12115

## ORGANIC ANALYSIS DATA SHEET

IR78-GW74-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-06RE1 File ID: 2DB017.D  
 Sampled: 03/14/15 10:00 Prepared: 04/07/15 00:00 Analyzed: 04/07/15 15:40

Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5D07016 Sequence: AA33335 Calibration: 1502029 Instrument: OVGCMS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	100	<100 UJ	UDQ	71	100	200
75-35-4	1,1-Dichloroethene	100	<100	UDQ	94	100	200
75-09-2	Methylene Chloride	100	<500	UDQ	200	500	1000
156-60-5	trans-1,2-Dichloroethene	100	<100	UDQ	73	100	200
156-59-2	cis-1,2-Dichloroethene	100	<100	UDQ	53	100	200
75-34-3	1,1-Dichloroethane	100	<100	UDQ	62	100	200
107-06-2	1,2-Dichloroethane	100	<100	UDQ	63	100	200
71-43-2	Benzene	100	250 J	DQ	71	100	200
79-01-6	Trichloroethene	100	<100 UJ	UDQ	89	100	200
108-88-3	Toluene	100	5900 J	DQ	72	100	200
127-18-4	Tetrachloroethene	100	<100 UJ	UDQ	76	100	200
100-41-4	Ethylbenzene	100	1300 J	DQ	69	100	200
98-82-8	Isopropylbenzene	100	<100 UJ	UDQ	67	100	200
96-12-8	1,2-Dibromo-3-chloropropane	100	<500 UJ	UDQ	96	500	1000
1330-20-7	Xylenes (Total)	100	5200 J	DQ	130	200	400
540-59-0	1,2-Dichloroethene (Total)	100	<100 W	UDQ	73	100	200

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	95	80 - 119	
Toluene-d8	50.0	44	88	89 - 112	*
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	356422	10.98	360813	11	
1,4-Difluorobenzene	619787	11.55	613683	11.57	
Chlorobenzene-d5	551883	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	242584	16.5	257796	16.52	

\* Values outside of QC limits

MW 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-GW83IW-15A

7

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-07 File ID: 2CS011.D  
 Sampled: 03/13/15 13:30 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 11:15  
 Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C24029 Sequence: AA33119 Calibration: 1502029 Instrument: OVGCMS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	0.89	J	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	0.89	J	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	98	80 - 119	
Toluene-d8	50.0	45	90	89 - 112	
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	382007	10.98	360813	11	
1,4-Difluorobenzene	662305	11.55	613683	11.57	
Chlorobenzene-d5	588629	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	252182	16.5	257796	16.52	

\* Values outside of QC limits

MW 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-GW86DW-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-08 File ID: 1CS016.D  
 Sampled: 03/13/15 10:10 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 14:07  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C24024 Sequence: AA33117 Calibration: 1503088 Instrument: OVGCMS1

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	UQ	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	5.0 24 u	10	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0 UJ	UQ	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 UJ	HO	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 UJ	UQ	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	42	83	80 - 119	
Toluene-d8	50.0	47	94	89 - 112	
4-Bromofluorobenzene	50.0	45	90	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	156972	11.46	189013	11.47	
1,4-Difluorobenzene	268251	12.03	339774	12.04	
Chlorobenzene-d5	239522	14.71	244965	14.72	
1,4-Dichlorobenzene-d4	72667	17.09	91047	17.1	

\* Values outside of QC limits

MSL

## ORGANIC ANALYSIS DATA SHEET

IR78-GW105MCH-15A  
9

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-09 File ID: 2CS012.D  
 Sampled: 03/13/15 09:00 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 11:44  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C24029 Sequence: AA33119 Calibration: 1502029 Instrument: OVGCM2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	10	<10	UD	7.1	10	20
75-35-4	1,1-Dichloroethene	10	<10	UD	9.4	10	20
75-09-2	Methylene Chloride	10	<50	UD	20	50	100
156-60-5	trans-1,2-Dichloroethene	10	<10	UD	7.3	10	20
156-59-2	cis-1,2-Dichloroethene	10	68	P	5.3	10	20
75-34-3	1,1-Dichloroethane	10	<10	UD	6.2	10	20
107-06-2	1,2-Dichloroethane	10	<10	UD	6.3	10	20
71-43-2	Benzene	10	<10	UD	7.1	10	20
79-01-6	Trichloroethene	10	770	D	8.9	10	20
108-88-3	Toluene	10	<10	UD	7.2	10	20
127-18-4	Tetrachloroethene	10	<10	UD	7.6	10	20
100-41-4	Ethylbenzene	10	<10	UD	6.9	10	20
98-82-8	Isopropylbenzene	10	<10	UD	6.7	10	20
96-12-8	1,2-Dibromo-3-chloropropane	10	<50	UD	9.6	50	100
1330-20-7	Xylenes (Total)	10	<20	UD	13	20	40
540-59-0	1,2-Dichloroethene (Total)	10	70	P	7.3	10	20

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	98	80 - 119	
Toluene-d8	50.0	45	91	89 - 112	
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	382695	10.98	360813	11	
1,4-Difluorobenzene	647186	11.56	613683	11.57	
Chlorobenzene-d5	587950	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	246101	16.5	257796	16.52	

\* Values outside of QC limits

m/s 2115

## ORGANIC ANALYSIS DATA SHEET

IR78-GW108UCH-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-10 File ID: 2CS013.D

Sampled: 03/13/15 11:30 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 12:13

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: 5C24029 Sequence: AA33119 Calibration: 1502029 Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 <i>UJ</i>	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0 <i>UJ</i>	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0 <i>UJ</i>	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0 <i>UJ</i>	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	1.9 <i>J</i>	J	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 <i>UJ</i>	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0 <i>UJ</i>	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 <i>J</i>	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	22 <i>J</i>	J	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 <i>UJ</i>	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0 <i>UJ</i>	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0 <i>UJ</i>	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0 <i>UJ</i>	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0 <i>UJ</i>	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0 <i>UJ</i>	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	1.9 <i>J</i>	J	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	45	90	80 - 119	
Toluene-d8	50.0	44	89	89 - 112	
4-Bromofluorobenzene	50.0	42	84	85 - 114	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	391094	10.98	360813	11	
1,4-Difluorobenzene	672150	11.56	613683	11.57	
Chlorobenzene-d5	570338	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	220590	16.5	257796	16.52	

\* Values outside of QC limits

1W 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-GW108UCH-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-10RE1 File ID: 5D2017.D  
 Sampled: 03/13/15 11:30 Prepared: 04/02/15 00:00 Analyzed: 04/02/15 16:12  
 Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL  
 Batch: 5D02011 Sequence: AA33267 Calibration: 1503091 Instrument: OVGCMSS

*10RE*  
*WQ original results*

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 WQ	UQ	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0 UQ	UQ	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0 UQ	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0 UQ	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0 UQ	UQ	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 UQ	UQ	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0 UQ	UQ	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 UQ	UQ	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0 UQ	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 UQ	UQ	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0 UQ	UQ	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0 UQ	UQ	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0 UQ	UQ	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0 UQ	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0 UQ	UQ	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0 UQ	UQ	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	57	114	80 - 119	
Toluene-d8	50.0	55	110	89 - 112	
4-Bromofluorobenzene	50.0	47	95	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	500394	11.474	646118	11.491	
1,4-Difluorobenzene	926402	12.173	1132565	12.189	
Chlorobenzene-d5	991179	15.607	1071316	15.632	
1,4-Dichlorobenzene-d4	537341	18.582	548927	18.606	

\* Values outside of QC limits

*MW 5/2/15*

## ORGANIC ANALYSIS DATA SHEET

IR78-GW112MCH-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-11 File ID: 2CS014.D

Sampled: 03/13/15 12:10 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 12:43

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: 5C24029 Sequence: AA33119 Calibration: 1502029 Instrument: OVGCMS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	4.8 $\text{J}$		0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0 $\text{uJ}$	$\text{U}$	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	$\text{U}$	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0 $\downarrow$	$\text{U}$	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	71 $\text{J}$		0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 $\text{uJ}$	$\text{U}$	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	$\text{U}$	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 $\downarrow$	$\text{U}$	0.71	1.0	2.0
79-01-6	Trichloroethene	1	1.2 $\text{J}$	$\text{J}$	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 $\text{uJ}$	$\text{U}$	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	$\text{U}$	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	$\text{U}$	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	$\text{U}$	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	$\text{U}$	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0 $\downarrow$	$\text{U}$	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	71 $\text{J}$		0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	97	80 - 119	
Toluene-d8	50.0	44	87	89 - 112	*
4-Bromofluorobenzene	50.0	45	90	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	380616	10.98	360813	11	
1,4-Difluorobenzene	671650	11.56	613683	11.57	
Chlorobenzene-d5	578138	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	243831	16.5	257796	16.52	

\* Values outside of QC limits

new 5/21/15

11RE

## ORGANIC ANALYSIS DATA SHEET

EPA 8260B

IR78-GW112MCH-15A

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-11RE1 File ID: 2DB012.D  
 Sampled: 03/13/15 12:10 Prepared: 04/07/15 00:00 Analyzed: 04/07/15 13:08

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: 5D07016 Sequence: AA3335 Calibration: 1502029 Instrument: OVGCMS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	5.1 J	Q	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0 UJ	UQ	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0 J	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0 J	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	70 J	Q	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 UJ	UQ	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0 J	UQ	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 J	UQ	0.71	1.0	2.0
79-01-6	Trichloroethene	1	0.94 J	JQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 UJ	UQ	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0 J	UQ	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0 J	UQ	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0 J	UQ	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0 J	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0 J	UQ	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	70 J	Q	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	99	80 - 119	
Toluene-d8	50.0	45	90	89 - 112	
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	352875	10.97	360813	11	
1,4-Difluorobenzene	609373	11.55	613683	11.57	
Chlorobenzene-d5	562083	14.22	591959	14.25	
1,4-Dichlorobenzene-d4	243919	16.5	257796	16.52	

\* Values outside of QC limits

MW 512115

## ORGANIC ANALYSIS DATA SHEET

IR78-GW128MCH-15A  
12

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-12 File ID: 2CS015.D  
 Sampled: 03/13/15 10:45 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 13:12  
 Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C24029 Sequence: AA33119 Calibration: 1502029 Instrument: OVGCMSS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	97	80 - 119	
Toluene-d8	50.0	44	89	89 - 112	
4-Bromofluorobenzene	50.0	45	90	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	388845	10.98	360813	11	
1,4-Difluorobenzene	664868	11.55	613683	11.57	
Chlorobenzene-d5	576118	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	245731	16.5	257796	16.52	

\* Values outside of QC limits

MS 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-GW129LCH-15A

EPA 8260B

Laboratory: ENCO Orlando

SDG:

A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project:

CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-13File ID: 2CS016.DSampled: 03/13/15 10:40Prepared: 03/24/15 00:00Analyzed: 03/24/15 13:41

Solids:

Preparation: EPA 5030B\_MSInitial/Final: 5 mL / 5 mLBatch: 5C24029Sequence: AA33119Calibration: 1502029Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	98	80 - 119	
Toluene-d8	50.0	43	86	89 - 112	*
4-Bromofluorobenzene	50.0	45	90	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	380469	10.98	360813	11	
1,4-Difluorobenzene	674185	11.55	613683	11.57	
Chlorobenzene-d5	578937	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	247098	16.5	257796	16.52	

\* Values outside of QC limits

Mar 21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-GW129LCH-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-13RE1 File ID: 2DB013.D  
 Sampled: 03/13/15 10:40 Prepared: 04/07/15 00:00 Analyzed: 04/07/15 13:38

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: SD07016 Sequence: AA33335 Calibration: 1502029 Instrument: OVGCMSS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 UJ	UQ	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	UQ	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	UQ	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	UQ	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	UQ	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	UQ	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	UQ	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	UQ	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	UQ	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	UQ	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	UQ	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	UQ	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	44	88	89 - 112	*
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	358124	10.97	360813	11	
1,4-Difluorobenzene	619325	11.55	613683	11.57	
Chlorobenzene-d5	557042	14.22	591959	14.25	
1,4-Dichlorobenzene-d4	242774	16.49	257796	16.52	

\* Values outside of QC limits

new 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-RW05-15A  
14

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-14 File ID: 5CU008.D  
 Sampled: 03/14/15 10:05 Prepared: 03/26/15 00:00 Analyzed: 03/26/15 10:22

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: 5C26010 Sequence: AA33158 Calibration: 1503091 Instrument: OVGCMS5

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	3.4		0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	2.0		0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	UQ	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	3.4		0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	47	94	80 - 119	
Toluene-d8	50.0	48	95	89 - 112	
4-Bromofluorobenzene	50.0	48	97	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	555418	11.482	646118	11.491	
1,4-Difluorobenzene	991699	12.181	1132565	12.189	
Chlorobenzene-d5	906668	15.624	1071316	15.632	
1,4-Dichlorobenzene-d4	480682	18.59	548927	18.606	

\* Values outside of QC limits

Mar 21/15

## ORGANIC ANALYSIS DATA SHEET

IR78-RW08-15A

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-15 File ID: 1CS017.D  
 Sampled: 03/14/15 09:45 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 14:36  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5C24024 Sequence: AA33117 Calibration: 1503088 Instrument: OVGCMIS1

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	41	83	80 - 119	
Toluene-d8	50.0	47	94	89 - 112	
4-Bromofluorobenzene	50.0	43	87	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	147372	11.46	189013	11.47	
1,4-Difluorobenzene	251601	12.03	339774	12.04	
Chlorobenzene-d5	225995	14.71	244965	14.72	
1,4-Dichlorobenzene-d4	73038	17.09	91047	17.1	

\* Values outside of QC limits

mwsl2115

## ORGANIC ANALYSIS DATA SHEET

IR78-RW09R-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-16 File ID: 1CS018.D  
 Sampled: 03/13/15 12:40 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 15:04

Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5C24024 Sequence: AA33117 Calibration: 1503088 Instrument: OVGCMS1

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	42	83	80 - 119	
Toluene-d8	50.0	43	86	89 - 112	*
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	139193	11.46	189013	11.47	
1,4-Difluorobenzene	247348	12.03	339774	12.04	
Chlorobenzene-d5	216753	14.71	244965	14.72	
1,4-Dichlorobenzene-d4	70797	17.09	91047	17.1	

\* Values outside of QC limits

new results

## ORGANIC ANALYSIS DATA SHEET

IR78-RW09R-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-16RE1 File ID: 2DB014.D

Sampled: 03/13/15 12:40 Prepared: 04/07/15 00:00 Analyzed: 04/07/15 14:09

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: SD07016 Sequence: AA33335 Calibration: 1502029 Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	UQ	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	UQ	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	UQ	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	UQ	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	UQ	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	UQ	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	UQ	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	UQ	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	UQ	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	UQ	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	UQ	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	UQ	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	45	90	89 - 112	
4-Bromofluorobenzene	50.0	47	94	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	355784	10.98	360813	11	
1,4-Difluorobenzene	615194	11.55	613683	11.57	
Chlorobenzene-d5	554635	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	245128	16.49	257796	16.52	

\* Values outside of QC limits

mws1215

## ORGANIC ANALYSIS DATA SHEET

IR78-RW15-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-17 File ID: 5CU009.D  
 Sampled: 03/14/15 10:20 Prepared: 03/26/15 00:00 Analyzed: 03/26/15 11:05

Solids: Preparation: EPA 5030B\_MS Initial/Final: 1 mL / 5 mL

Batch: 5C26010 Sequence: AA33158 Calibration: 1503091 Instrument: OVGCMS5

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<5.0	U	3.6	5.0	10
75-35-4	1,1-Dichloroethene	1	<5.0 uJ	uQ	4.7	5.0	10
75-09-2	Methylene Chloride	1	<25 uJ	uQ	10	25	50
156-60-5	trans-1,2-Dichloroethene	1	<5.0 uJ	uQ	3.6	5.0	10
156-59-2	cis-1,2-Dichloroethene	1	23 J	Q	2.6	5.0	10
75-34-3	1,1-Dichloroethane	1	<5.0 uJ	uQ	3.1	5.0	10
107-06-2	1,2-Dichloroethane	1	<5.0 uJ	uQ	3.2	5.0	10
71-43-2	Benzene	1	49 J	Q	3.6	5.0	10
79-01-6	Trichloroethene	1	4.6 J	uQ	4.4	5.0	10
108-88-3	Toluene	1	330 J	Q	3.6	5.0	10
127-18-4	Tetrachloroethene	1	<5.0 uJ	uQ	3.8	5.0	10
100-41-4	Ethylbenzene	1	130 J	Q	3.4	5.0	10
98-82-8	Isopropylbenzene	1	11 J	Q	3.4	5.0	10
96-12-8	1,2-Dibromo-3-chloropropane	1	<25	U	4.8	25	50
1330-20-7	Xylenes (Total)	1	490 J	Q	6.5	10	20
540-59-0	1,2-Dichloroethene (Total)	1	23		3.6	5.0	10

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	250	230	93	80 - 119	
Toluene-d8	250	250	98	89 - 112	
4-Bromofluorobenzene	250	240	96	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	544617	11.482	646118	11.491	
1,4-Difluorobenzene	957263	12.181	1132565	12.189	
Chlorobenzene-d5	913365	15.623	1071316	15.632	
1,4-Dichlorobenzene-d4	471866	18.59	548927	18.606	

\* Values outside of QC limits

Use results

MSL

MSL

new sizes

## ORGANIC ANALYSIS DATA SHEET

IR78-RW15-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-17RE1 File ID: 2DB018.D  
 Sampled: 03/14/15 10:20 Prepared: 04/07/15 00:00 Analyzed: 04/07/15 16:11  
 Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL  
 Batch: 5D07016 Sequence: AA33335 Calibration: 1502029 Instrument: OVGCMS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	5	<5.0 <i>UJ</i>	UDQ	3.6	5.0	10
75-35-4	1,1-Dichloroethene	5	<5.0	UDQ	4.7	5.0	10
75-09-2	Methylene Chloride	5	<25	UDQ	10	25	50
156-60-5	trans-1,2-Dichloroethene	5	<5.0	UDQ	3.6	5.0	10
156-59-2	cis-1,2-Dichloroethene	5	27 <i>J</i>	DQ	2.6	5.0	10
75-34-3	1,1-Dichloroethane	5	<5.0 <i>UJ</i>	UDQ	3.1	5.0	10
107-06-2	1,2-Dichloroethane	5	<5.0 <i>UJ</i>	UDQ	3.2	5.0	10
71-43-2	Benzene	5	60 <i>J</i>	DQ	3.6	5.0	10
79-01-6	Trichloroethene	5	<5.0 <i>UJ</i>	UDQ	4.4	5.0	10
108-88-3	Toluene	5	410 <i>J</i>	DQ	3.6	5.0	10
127-18-4	Tetrachloroethene	5	<5.0 <i>UJ</i>	UDQ	3.8	5.0	10
100-41-4	Ethylbenzene	5	150 <i>J</i>	DQ	3.4	5.0	10
98-82-8	Isopropylbenzene	5	12 <i>J</i>	DQ	3.4	5.0	10
96-12-8	1,2-Dibromo-3-chloropropane	5	<25 <i>UJ</i>	UDQ	4.8	25	50
1330-20-7	Xylenes (Total)	5	550 <i>J</i>	DQ	6.5	10	20
540-59-0	1,2-Dichloroethene (Total)	5	27 <i>J</i>	DQ	3.6	5.0	10

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	45	91	89 - 112	
4-Bromofluorobenzene	50.0	47	94	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	356972	10.97	360813	11	
1,4-Difluorobenzene	605094	11.55	613683	11.57	
Chlorobenzene-d5	558339	14.22	591959	14.25	
1,4-Dichlorobenzene-d4	243305	16.5	257796	16.52	

\* Values outside of QC limits

Mr 5/20/15

## ORGANIC ANALYSIS DATA SHEET

18  
UST1613-GW03-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-18 File ID: 5CU010.D  
 Sampled: 03/15/15 12:00 Prepared: 03/26/15 00:00 Analyzed: 03/26/15 11:36  
 Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C26010 Sequence: AA33158 Calibration: 1503091 Instrument: OVGCMSS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U*	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	98	80 - 119	
Toluene-d8	50.0	48	97	89 - 112	
4-Bromofluorobenzene	50.0	50	100	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	544103	11.482	646118	11.491	
1,4-Difluorobenzene	984315	12.181	1132565	12.189	
Chlorobenzene-d5	907378	15.624	1071316	15.632	
1,4-Dichlorobenzene-d4	470828	18.59	548927	18.606	

\* Values outside of QC limits

msulis

## ORGANIC ANALYSIS DATA SHEET

UST1613-GW13-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-19 File ID: 2CS017.D

Sampled: 03/13/15 16:20 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 14:11

Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5C24029 Sequence: AA33119 Calibration: 1502029 Instrument: OVGCMS2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 U	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0 U	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0 U	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0 U	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0 U	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0 U	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0 U	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0 U	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0 U	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0 U	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0 U	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0 U	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0 U	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0 U	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0 U	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0 U	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	43	87	89 - 112	*
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	383080	10.99	360813	11	
1,4-Difluorobenzene	668818	11.56	613683	11.57	
Chlorobenzene-d5	571993	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	246252	16.5	257796	16.52	

\* Values outside of QC limits

*Murphy*

**ORGANIC ANALYSIS DATA SHEET**

**EPA 8260B**

19RE  
UST1613-GW13-15A

Laboratory:	<u>ENCO Orlando</u>	SDG:	<u>A501571-CTOWE86</u>
Client:	<u>CH2M Hill, Inc. (CH025)</u>	Project:	<u>CTO-WE86 MCB Camp Lejeune Site 78</u>
Matrix:	<u>Ground Water</u>	Laboratory ID:	<u>A501571-19RE1</u>
Sampled:	<u>03/13/15 16:20</u>	Prepared:	<u>04/07/15 00:00</u>
Solids:		Preparation:	<u>EPA 5030B_MS</u>
Batch:	<u>5D07016</u>	Sequence:	<u>AA33335</u>
		Calibration:	<u>1502029</u>
		Instrument:	<u>OVGCMS2</u>

*use original results*

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0 US	UQ	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	UQ	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	UQ	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	UQ	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	UQ	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	UQ	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	UQ	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	UQ	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	UQ	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	UQ	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	UQ	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	UQ	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	45	90	89 - 112	
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	357588	10.97	360813	11	
1,4-Difluorobenzene	607605	11.55	613683	11.57	
Chlorobenzene-d5	560773	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	246822	16.49	257796	16.52	

\* Values outside of QC limits

Mr Sizlls

## ORGANIC ANALYSIS DATA SHEET

20  
UST1613-GW17-15A

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-20 File ID: 5CU011.D

Sampled: 03/14/15 16:20 Prepared: 03/26/15 00:00 Analyzed: 03/26/15 12:06

Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL

Batch: 5C26010 Sequence: AA33158 Calibration: 1503091 Instrument: OVGCMSS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	5	<5.0	UD	3.6	5.0	10
75-35-4	1,1-Dichloroethene	5	<5.0	UD	4.7	5.0	10
75-09-2	Methylene Chloride	5	<25	UD	10	25	50
156-60-5	trans-1,2-Dichloroethene	5	<5.0	UD	3.6	5.0	10
156-59-2	cis-1,2-Dichloroethene	5	<5.0	UD	2.6	5.0	10
75-34-3	1,1-Dichloroethane	5	<5.0	UD	3.1	5.0	10
107-06-2	1,2-Dichloroethane	5	<5.0	UD	3.2	5.0	10
71-43-2	Benzene	5	<5.0	UD	3.6	5.0	10
79-01-6	Trichloroethene	5	<5.0	UD	4.4	5.0	10
108-88-3	Toluene	5	250	D	3.6	5.0	10
127-18-4	Tetrachloroethene	5	<5.0	UD	3.8	5.0	10
100-41-4	Ethylbenzene	5	40	P	3.4	5.0	10
98-82-8	Isopropylbenzene	5	<5.0	UD	3.4	5.0	10
96-12-8	1,2-Dibromo-3-chloropropane	5	<25	UD	4.8	25	50
1330-20-7	Xylenes (Total)	5	330	DQ	6.5	10	20
540-59-0	1,2-Dichloroethene (Total)	5	<5.0	UD	3.6	5.0	10

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	44	89	80 - 119	
Toluene-d8	50.0	47	94	89 - 112	
4-Bromofluorobenzene	50.0	47	94	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	565523	11.482	646118	11.491	
1,4-Difluorobenzene	1002564	12.181	1132565	12.189	
Chlorobenzene-d5	915564	15.623	1071316	15.632	
1,4-Dichlorobenzene-d4	470573	18.59	548927	18.606	

\* Values outside of QC limits

new stylus

## ORGANIC ANALYSIS DATA SHEET

EPA 8260B

UST1613-GW17-15A

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-20RE1 File ID: 2DB019.D  
 Sampled: 03/14/15 16:20 Prepared: 04/07/15 00:00 Analyzed: 04/07/15 16:42  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: SD07016 Sequence: AA33335 Calibration: 150209 Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	5	<5.0 <u>uJ</u>	UDQ	3.6	5.0	10
75-35-4	1,1-Dichloroethene	5	<5.0	UDQ	4.7	5.0	10
75-09-2	Methylene Chloride	5	<25	UDQ	10	25	50
156-60-5	trans-1,2-Dichloroethene	5	<5.0	UDQ	3.6	5.0	10
156-59-2	cis-1,2-Dichloroethene	5	<5.0	UDQ	2.6	5.0	10
75-34-3	1,1-Dichloroethane	5	<5.0	UDQ	3.1	5.0	10
107-06-2	1,2-Dichloroethane	5	<5.0	UDQ	3.2	5.0	10
71-43-2	Benzene	5	<5.0	UDQ	3.6	5.0	10
79-01-6	Trichloroethene	5	<5.0	UDQ	4.4	5.0	10
108-88-3	Toluene	5	220 <u>J</u>	DQ	3.6	5.0	10
127-18-4	Tetrachloroethene	5	<5.0 <u>uJ</u>	UDQ	3.8	5.0	10
100-41-4	Ethylbenzene	5	29 <u>J</u>	DQ	3.4	5.0	10
98-82-8	Isopropylbenzene	5	<5.0 <u>uJ</u>	UDQ	3.4	5.0	10
96-12-8	1,2-Dibromo-3-chloropropane	5	<25 <u>uJ</u>	UDQ	4.8	25	50
1330-20-7	Xylenes (Total)	5	250 <u>J</u>	DQ	6.5	10	20
540-59-0	1,2-Dichloroethene (Total)	5	<5.0 <u>uJ</u>	UDQ	3.6	5.0	10

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	98	80 - 119	
Toluene-d8	50.0	44	88	89 - 112	*
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	350511	10.98	360813	11	
1,4-Difluorobenzene	617517	11.55	613683	11.57	
Chlorobenzene-d5	556079	14.22	591959	14.25	
1,4-Dichlorobenzene-d4	245027	16.5	257796	16.52	

\* Values outside of QC limits

MWS/21/15

## ORGANIC ANALYSIS DATA SHEET

IR94-GW02IW-15A  
21

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-21 File ID: 2CS018.D  
 Sampled: 03/13/15 12:45 Prepared: 03/24/15 00:00 Analyzed: 03/24/15 14:40  
 Solids: Preparation: EPA 5030B\_MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C24029 Sequence: AA33119 Calibration: 1502029 Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	1.6	J	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	1.1	J	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	1.6	J	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	99	80 - 119	
Toluene-d8	50.0	45	91	89 - 112	
4-Bromofluorobenzene	50.0	45	89	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	380243	10.99	360813	11	
1,4-Difluorobenzene	652226	11.56	613683	11.57	
Chlorobenzene-d5	585302	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	245746	16.5	257796	16.52	

\* Values outside of QC limits

MS 5/21/15

## ORGANIC ANALYSIS DATA SHEET

IR94-GW03IW-15A

EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-22 File ID: 2CT006.D  
 Sampled: 03/13/15 13:45 Prepared: 03/25/15 00:00 Analyzed: 03/25/15 08:25  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C25015 Sequence: AA33136 Calibration: 1502029 Instrument: OVGCMs2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	13		0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	3.2		0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	UQ	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	13		0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	48	96	80 - 119	
Toluene-d8	50.0	45	90	89 - 112	
4-Bromofluorobenzene	50.0	46	92	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	382896	10.98	360813	11	
1,4-Difluorobenzene	657803	11.55	613683	11.57	
Chlorobenzene-d5	593101	14.23	591959	14.25	
1,4-Dichlorobenzene-d4	253027	16.5	257796	16.52	

\* Values outside of QC limits

MW Shull

23

**ORGANIC ANALYSIS DATA SHEET**  
**EPA 8260B**

IR78-TB-031515-3

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78  
 Matrix: Ground Water Laboratory ID: A501571-23 File ID: 5CO018.D  
 Sampled: 03/15/15 12:35 Prepared: 03/20/15 00:00 Analyzed: 03/20/15 14:44  
 Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 5C20013 Sequence: AA33073 Calibration: 1503031 Instrument: QVGCMSS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	UQ	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	UQ	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	UQ	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	UQ	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	UQ	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	UQ	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	59	118	80 - 119	
Toluene-d8	50.0	57	114	89 - 112	*
4-Bromofluorobenzene	50.0	52	105	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	610259	11.482	591935	11.466	
1,4-Difluorobenzene	1205030	12.181	1054899	12.173	
Chlorobenzene-d5	1629895	15.624	1238789	15.607	
1,4-Dichlorobenzene-d4	952627	18.59	673258	18.574	

\* Values outside of QC limits

MW Shultz

## ORGANIC ANALYSIS DATA SHEET

IR78-GW22-15A  
24

## EPA 8260B

Laboratory: ENCO Orlando SDG: A501571-CTOWE86  
 Client: CH2M Hill, Inc. (CH025) Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water Laboratory ID: A501571-24 File ID: 5CU012.D

Sampled: 03/16/15 10:05 Prepared: 03/26/15 00:00 Analyzed: 03/26/15 12:37

Solids: Preparation: EPA 5030B MS Initial/Final: 5 mL / 5 mL

Batch: 5C26010 Sequence: AA33158 Calibration: 1503091 Instrument: OVGCMSS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	LOD	LOQ
75-01-4	Vinyl chloride	1	<1.0	U	0.71	1.0	2.0
75-35-4	1,1-Dichloroethene	1	<1.0	U	0.94	1.0	2.0
75-09-2	Methylene Chloride	1	<5.0	U	2.0	5.0	10
156-60-5	trans-1,2-Dichloroethene	1	<1.0	U	0.73	1.0	2.0
156-59-2	cis-1,2-Dichloroethene	1	<1.0	U	0.53	1.0	2.0
75-34-3	1,1-Dichloroethane	1	<1.0	U	0.62	1.0	2.0
107-06-2	1,2-Dichloroethane	1	<1.0	U	0.63	1.0	2.0
71-43-2	Benzene	1	<1.0	U	0.71	1.0	2.0
79-01-6	Trichloroethene	1	<1.0	U	0.89	1.0	2.0
108-88-3	Toluene	1	<1.0	U	0.72	1.0	2.0
127-18-4	Tetrachloroethene	1	<1.0	U	0.76	1.0	2.0
100-41-4	Ethylbenzene	1	<1.0	U	0.69	1.0	2.0
98-82-8	Isopropylbenzene	1	<1.0	U	0.67	1.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1	<5.0	U	0.96	5.0	10
1330-20-7	Xylenes (Total)	1	<2.0	U	1.3	2.0	4.0
540-59-0	1,2-Dichloroethene (Total)	1	<1.0	U	0.73	1.0	2.0

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.0	49	98	80 - 119	
Toluene-d8	50.0	49	99	89 - 112	
4-Bromofluorobenzene	50.0	49	98	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene	532241	11.482	646118	11.491	
1,4-Difluorobenzene	944074	12.189	1132565	12.189	
Chlorobenzene-d5	895961	15.624	1071316	15.632	
1,4-Dichlorobenzene-d4	469427	18.59	548927	18.606	

\* Values outside of QC limits

Mr S/2015



## INORGANIC ANALYSIS DATA SHEET

IR78-GW63-15A

## EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water

Laboratory ID: A501571-01

File ID: 032715\_RP1\_Fe\_LTZ-119

Sampled: 03/14/15 15:30

Prepared: 03/20/15 08:48

Analyzed: 03/27/15 16:24

Solids: 0.00

Preparation: EPA 3005A

Initial/Final: 50 mL / 50 mL

Batch: SC19031

Sequence: AA33175

Calibration: 1503102

Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	269	2	D	13.6	50.0	90.0	EPA 6020A
7440-36-0	Antimony	<0.880 <i>UJ</i>	2	UDQ	0.220	0.880	1.00	EPA 6020A
7440-38-2	Arsenic	5.15	2	JP	1.22	20.0	30.0	EPA 6020A
7440-39-3	Barium	18.7	2	JP	4.00	16.0	20.0	EPA 6020A
7440-41-7	Beryllium	1.28	2	JP	0.188	0.740	1.60	EPA 6020A
7440-43-9	Cadmium	0.422	2	JP	0.220	8.00	16.0	EPA 6020A
7440-70-2	Calcium <i>Exclude</i>	78500	2	DE	72.0	2400	3500	EPA 6020A
7440-47-3	Chromium	1.07	2	JP	0.900	6.00	10.0	EPA 6020A
7440-48-4	Cobalt	22.0	2	D	0.420	1.68	2.00	EPA 6020A
7440-50-8	Copper	4.54 <i>U</i>	2	D	0.440	1.76	3.00	EPA 6020A
7439-89-6	Iron <i>exclude</i>	5580	2	DEQ	7.60	30.0	50.0	EPA 6020A
7439-92-1	Lead	<1.20	2	UD	0.320	1.20	2.00	EPA 6020A
7439-95-4	Magnesium	5920 <i>J</i>	2	D	60.0	240	400	EPA 6020A
7439-96-5	Manganese <i>exclude</i>	300	2	DE	0.640	2.56	4.00	EPA 6020A
7440-02-0	Nickel	22.1	2	D	0.640	2.40	4.00	EPA 6020A
7440-09-7	Potassium	3660 <i>J</i>	2	JP	96.0	3500	7000	EPA 6020A
7782-49-2	Selenium	<5.20	2	UD	1.30	5.20	8.00	EPA 6020A
7440-22-4	Silver	<0.232	2	UD	0.0580	0.232	0.450	EPA 6020A
7440-23-5	Sodium <i>exclude</i>	15200 <i>J</i>	2	DQ	64.0	240	400	EPA 6020A
7440-28-0	Thallium	0.749	2	JP	0.116	0.460	0.800	EPA 6020A
7440-62-2	Vanadium	0.520	2	JP	0.400	1.60	2.00	EPA 6020A
7440-66-6	Zinc	44.5 <i>U</i>	2	D	3.20	12.8	20.0	EPA 6020A

mr shull

RE

**INORGANIC ANALYSIS DATA SHEET  
EPA 6020A**

IR78-GW63-15A

Laboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-01RE1File ID: 032715\_RP1\_Fe\_LTZ-121Sampled: 03/14/15 15:30Prepared: 03/20/15 08:48Analyzed: 03/27/15 16:31Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7440-70-2	Calcium	85500	20	✓	720	24000	35000	EPA 6020A
7439-89-6	Iron	5800	20	✓	76.0	300	500	EPA 6020A
7439-96-5	Manganese	300	20	✓	6.40	25.6	40.0	EPA 6020A
7440-23-5	Sodium	14900	20	✓	640	2400	4000	EPA 6020A

MW 5/21/15

## INORGANIC ANALYSIS DATA SHEET

IR78-GW63D-15A

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water

Laboratory ID: A501571-02

File ID: 032715\_RP1\_Fe\_LTZ-122

Sampled: 03/14/15 15:35

Prepared: 03/20/15 08:48

Analyzed: 03/27/15 16:35

Solids: 0.00

Preparation: EPA 3005A

Initial/Final: 50 mL / 50 mL

Batch: SC19031

Sequence: AA33175

Calibration: 1503102

Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	266	2	P	13.6	50.0	90.0	EPA 6020A
7440-36-0	Antimony	<0.880 uJ	2	UDQ	0.220	0.880	1.00	EPA 6020A
7440-38-2	Arsenic	4.88	2	JD	1.22	20.0	30.0	EPA 6020A
7440-39-3	Barium	18.5	2	JD	4.00	16.0	20.0	EPA 6020A
7440-41-7	Beryllium	1.30	2	JD	0.188	0.740	1.60	EPA 6020A
7440-43-9	Cadmium	0.391	2	JD	0.220	8.00	16.0	EPA 6020A
7440-70-2	Calcium	79600 exclude	2	DE	72.0	2400	3500	EPA 6020A
7440-47-3	Chromium	1.61	2	JD	0.900	6.00	10.0	EPA 6020A
7440-48-4	Cobalt	22.6	2	P	0.420	1.68	2.00	EPA 6020A
7440-50-8	Copper	4.60 u	2	P	0.440	1.76	3.00	EPA 6020A
7439-89-6	Iron	5920 exclude	2	DEQ	7.60	30.0	50.0	EPA 6020A
7439-92-1	Lead	<1.20	2	UD	0.320	1.20	2.00	EPA 6020A
7439-95-4	Magnesium	5850 J	2	P	60.0	240	400	EPA 6020A
7439-96-5	Manganese	299 exclude	2	DE	0.640	2.56	4.00	EPA 6020A
7440-02-0	Nickel	21.8	2	P	0.640	2.40	4.00	EPA 6020A
7440-09-7	Potassium	3650 J	2	JD	96.0	3500	7000	EPA 6020A
7782-49-2	Selenium	<5.20	2	UD	1.30	5.20	8.00	EPA 6020A
7440-22-4	Silver	<0.232	2	UD	0.0580	0.232	0.450	EPA 6020A
7440-23-5	Sodium	15300 J exclude	2	DQ	64.0	240	400	EPA 6020A
7440-28-0	Thallium	0.738	2	JD	0.116	0.460	0.800	EPA 6020A
7440-62-2	Vanadium	0.504	2	JD	0.400	1.60	2.00	EPA 6020A
7440-66-6	Zinc	43.8 u	2	P	3.20	12.8	20.0	EPA 6020A

MSH/115

28

**INORGANIC ANALYSIS DATA SHEET****EPA 6020A**

IR78-GW63D-15A

Laboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-02RE1File ID: 032715\_RP1\_Fe\_LTZ-124Sampled: 03/14/15 15:35Prepared: 03/20/15 08:48Analyzed: 03/27/15 16:43Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration ( $\mu$ g/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7440-70-2	Calcium	82300	20	D	720	24000	35000	EPA 6020A
7439-89-6	Iron	5700	20	D	76.0	300	500	EPA 6020A
7439-96-5	Manganese	296	20	D	6.40	25.6	40.0	EPA 6020A
7440-23-5	Sodium	14600	20	D	640	2400	4000	EPA 6020A

MW 5/21/15

## INORGANIC ANALYSIS DATA SHEET

IR78-GW64-15A

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-03File ID: 032715 RP1 Fe LTZ-125Sampled: 03/14/15 17:00Prepared: 03/20/15 08:48Analyzed: 03/27/15 16:46Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	<125	5	UD	34.0	125	225	EPA 6020A
7440-36-0	Antimony	<2.20 $\mu\text{g}$	5	UDQ	0.550	2.20	2.50	EPA 6020A
7440-38-2	Arsenic	11.0	5	UD	3.05	50.0	75.0	EPA 6020A
7440-39-3	Barium	44.4	5	UD	10.0	40.0	50.0	EPA 6020A
7440-41-7	Beryllium	<1.85	5	UD	0.470	1.85	4.00	EPA 6020A
7440-43-9	Cadmium	<20.0	5	UD	0.550	20.0	40.0	EPA 6020A
7440-70-2	Calcium	163000 <i>exclude</i>	5	DE	180	6000	8750	EPA 6020A
7440-47-3	Chromium	<15.0	5	UD	2.25	15.0	25.0	EPA 6020A
7440-48-4	Cobalt	<4.20	5	UD	1.05	4.20	5.00	EPA 6020A
7440-50-8	Copper	<4.40	5	UD	1.10	4.40	7.50	EPA 6020A
7439-89-6	Iron	4460 <i>exclude</i>	5	DEQ	19.0	75.0	125	EPA 6020A
7439-92-1	Lead	<3.00	5	UD	0.800	3.00	5.00	EPA 6020A
7439-95-4	Magnesium	3330 $\text{J}$	5	D	150	600	1000	EPA 6020A
7439-96-5	Manganese	61.8	5	D	1.60	6.40	10.0	EPA 6020A
7440-02-0	Nickel	11.9	5	D	1.60	6.00	10.0	EPA 6020A
7440-09-7	Potassium	5570 $\text{J}$	5	D	240	8750	17500	EPA 6020A
7782-49-2	Selenium	<13.0	5	UD	3.25	13.0	20.0	EPA 6020A
7440-22-4	Silver	<0.580	5	UD	0.145	0.580	1.12	EPA 6020A
7440-23-5	Sodium	18500 <i>exclude</i>	5	DQ	160	600	1000	EPA 6020A
7440-28-0	Thallium	<1.15	5	UD	0.290	1.15	2.00	EPA 6020A
7440-62-2	Vanadium	<4.00	5	UD	1.00	4.00	5.00	EPA 6020A
7440-66-6	Zinc	32.015.9 $\mu\text{g}$	5	D	8.00	32.0	50.0	EPA 6020A

10/21/15

3RE

## INORGANIC ANALYSIS DATA SHEET

EPA 6020A

IR78-GW64-15A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-03RE1File ID: 032715\_RP1\_Fe\_LTZ-127Sampled: 03/14/15 17:00Prepared: 03/20/15 08:48Analyzed: 03/27/15 16:54Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7440-70-2	Calcium	166000	30	D	1080	36000	52500	EPA 6020A
7439-89-6	Iron	4210	30	D	114	450	750	EPA 6020A
7440-23-5	Sodium	16200	30	D	960	3600	6000	EPA 6020A

mrsalis

## INORGANIC ANALYSIS DATA SHEET

IR78-GW73-15A  
4

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water

Laboratory ID: A501571-04

File ID: 032715\_RP1\_Fe\_LTZ-094

Sampled: 03/14/15 08:50

Prepared: 03/20/15 08:48

Analyzed: 03/27/15 14:52

Solids: 0.00

Preparation: EPA 3005A

Initial/Final: 50 mL / 50 mL

Batch: 5C19031

Sequence: AA33175

Calibration: 1503102

Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	195	1		6.80	25.0	45.0	EPA 6020A
7440-36-0	Antimony	<0.440	1	U	0.110	0.440	0.500	EPA 6020A
7440-38-2	Arsenic	<10.0	1	U	0.610	10.0	15.0	EPA 6020A
7440-39-3	Barium	41.8	1		2.00	8.00	10.0	EPA 6020A
7440-41-7	Beryllium	0.122	1	J	0.0940	0.370	0.800	EPA 6020A
7440-43-9	Cadmium	<4.00	1	U	0.110	4.00	8.00	EPA 6020A
7440-70-2	Calcium	5460	1		36.0	1200	1750	EPA 6020A
7440-47-3	Chromium	<3.00	1	U	0.450	3.00	5.00	EPA 6020A
7440-48-4	Cobalt	<0.840	1	U	0.210	0.840	1.00	EPA 6020A
7440-50-8	Copper	<0.880	1	U	0.220	0.880	1.50	EPA 6020A
7439-89-6	Iron exclude	242 J	1	Q	3.80	15.0	25.0	EPA 6020A
7439-92-1	Lead	2.37	1		0.160	0.600	1.00	EPA 6020A
7439-95-4	Magnesium	1480 J	1		30.0	120	200	EPA 6020A
7439-96-5	Manganese	12.8	1		0.320	1.28	2.00	EPA 6020A
7440-02-0	Nickel	<1.20	1	U	0.320	1.20	2.00	EPA 6020A
7440-09-7	Potassium	920 J	1	Q	48.0	1750	3500	EPA 6020A
7782-49-2	Selenium	<2.60	1	U	0.650	2.60	4.00	EPA 6020A
7440-22-4	Silver	<0.116	1	U	0.0290	0.116	0.225	EPA 6020A
7440-23-5	Sodium	2600 J	1		32.0	120	200	EPA 6020A
7440-28-0	Thallium	<0.230	1	U	0.0580	0.230	0.400	EPA 6020A
7440-62-2	Vanadium	0.372	1	J	0.200	0.800	1.00	EPA 6020A
7440-66-6	Zinc	<6.40	1	U	1.60	6.40	10.0	EPA 6020A

Mar 21/15

**INORGANIC ANALYSIS DATA SHEET****EPA 6020A**IR78-GW73-15A  
4RELaboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-04RE1File ID: 040215a\_DOD-026Sampled: 03/14/15 08:50Prepared: 03/20/15 08:48Analyzed: 04/02/15 13:44Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33263Calibration: 1504011Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-89-6	Iron	226	1		3.80	15.0	25.0	EPA 6020A

Mr. Sizelis

## INORGANIC ANALYSIS DATA SHEET

IR78-GW73D-15A

EPA 6020A

5

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-05File ID: 032715\_RP1\_Fe\_LTZ-095Sampled: 03/14/15 08:55Prepared: 03/20/15 08:48Analyzed: 03/27/15 14:55Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration ( $\mu\text{g/L}$ )	Dilution Factor	Q	DL	LOD	LOQ	Method	
7429-90-5	Aluminum	202	1		6.80	25.0	45.0	EPA 6020A	
7440-36-0	Antimony	<0.440	1	U	0.110	0.440	0.500	EPA 6020A	
7440-38-2	Arsenic	<10.0	1	U	0.610	10.0	15.0	EPA 6020A	
7440-39-3	Barium	42.1	1		2.00	8.00	10.0	EPA 6020A	
7440-41-7	Beryllium	0.124	1	J	0.0940	0.370	0.800	EPA 6020A	
7440-43-9	Cadmium	<4.00	1	U	0.110	4.00	8.00	EPA 6020A	
7440-70-2	Calcium	5440	1		36.0	1200	1750	EPA 6020A	
7440-47-3	Chromium	<3.00	1	U	0.450	3.00	5.00	EPA 6020A	
7440-48-4	Cobalt	<0.840	1	U	0.210	0.840	1.00	EPA 6020A	
7440-50-8	Copper	<0.880	1	U	0.220	0.880	1.50	EPA 6020A	
7439-89-6	Iron <i>Exclude</i>	229 J	1	R	3.80	15.0	25.0	EPA 6020A	
7439-92-1	Lead	2.37	1		0.160	0.600	1.00	EPA 6020A	
7439-95-4	Magnesium	1520 J	1		30.0	120	200	EPA 6020A	
7439-96-5	Manganese	13.0	1		0.320	1.28	2.00	EPA 6020A	
7440-02-0	Nickel	<1.20	1	U	0.320	1.20	2.00	EPA 6020A	
7440-09-7	Potassium	989 J	1	X	48.0	1750	3500	EPA 6020A	
7782-49-2	Selenium	<2.60	1	U	0.650	2.60	4.00	EPA 6020A	
7440-22-4	Silver	<0.116	1	U	0.0290	0.116	0.225	EPA 6020A	
7440-23-5	Sodium	2650 J	1		32.0	120	200	EPA 6020A	
7440-28-0	Thallium	<0.230	1	U	0.0580	0.230	0.400	EPA 6020A	
7440-62-2	Vanadium	0.334	1	J	0.200	0.800	1.00	EPA 6020A	
7440-66-6	Zinc	6.40	1.63 u	1	X	1.60	6.40	10.0	EPA 6020A

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5RE

**INORGANIC ANALYSIS DATA SHEET****EPA 6020A**

IR78-GW73D-15A

Laboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-05RE1File ID: 040215a\_DOD-027Sampled: 03/14/15 08:55Prepared: 03/20/15 08:48Analyzed: 04/02/15 13:46Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33263Calibration: 1504011Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-89-6	Iron	218	1		3.80	15.0	25.0	EPA 6020A

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## INORGANIC ANALYSIS DATA SHEET

IR78-RW08-15A

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-15File ID: 032715\_RP1\_Fe\_LTZ-140Sampled: 03/14/15 09:45Prepared: 03/20/15 08:48Analyzed: 03/27/15 17:43Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration ( $\mu\text{g/L}$ )	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	3600	10	✓	68.0	250	450	EPA 6020A
7440-36-0	Antimony	<4.40 <u>UJ</u>	10	UDQ	1.10	4.40	5.00	EPA 6020A
7440-38-2	Arsenic	<100	10	UP	6.10	100	150	EPA 6020A
7440-39-3	Barium	54.7	10	JP	20.0	80.0	100	EPA 6020A
7440-41-7	Beryllium	<3.70	10	UP	0.940	3.70	8.00	EPA 6020A
7440-43-9	Cadmium	<40.0	10	UP	1.10	40.0	80.0	EPA 6020A
7440-70-2	Calcium	43400	10	D	360	12000	17500	EPA 6020A
7440-47-3	Chromium	<30.0	10	UP	4.50	30.0	50.0	EPA 6020A
7440-48-4	Cobalt	<8.40	10	UP	2.10	8.40	10.0	EPA 6020A
7440-50-8	Copper	9.42 <u>u</u>	10	D	2.20	8.80	15.0	EPA 6020A
7439-89-6	Iron <u>Exclude</u>	12600	10	DEQ	38.0	150	250	EPA 6020A
7439-92-1	Lead	2.94	10	JP	1.60	6.00	10.0	EPA 6020A
7439-95-4	Magnesium	3200 <u>J</u>	10	D	300	1200	2000	EPA 6020A
7439-96-5	Manganese	103	10	D	3.20	12.8	20.0	EPA 6020A
7440-02-0	Nickel	15.2	10	JP	3.20	12.0	20.0	EPA 6020A
7440-09-7	Potassium	<17500	10	UP	480	17500	35000	EPA 6020A
7782-49-2	Selenium	<26.0	10	UP	6.50	26.0	40.0	EPA 6020A
7440-22-4	Silver	<1.16	10	UP	0.290	1.16	2.25	EPA 6020A
7440-23-5	Sodium	14600 <u>J</u>	10	D	320	1200	2000	EPA 6020A
7440-28-0	Thallium	<2.30	10	UP	0.580	2.30	4.00	EPA 6020A
7440-62-2	Vanadium	<8.00	10	UP	2.00	8.00	10.0	EPA 6020A
7440-66-6	Zinc	134	10	D	16.0	64.0	100	EPA 6020A

Mar 21/15

## INORGANIC ANALYSIS DATA SHEET

IR78-RW08-15A

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water

Laboratory ID: A501571-15RE1

File ID: 040215a DOD-042

Sampled: 03/14/15 09:45

Prepared: 03/20/15 08:48

Analyzed: 04/02/15 14:40

Solids: 0.00

Preparation: EPA 3005A

Initial/Final: 50 mL / 50 mL

Batch: 5C19031

Sequence: AA33263

Calibration: 1504011

Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-89-6	Iron	12000	30	P	114	450	750	EPA 6020A

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## INORGANIC ANALYSIS DATA SHEET

UST1613-GW03-15A

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water

Laboratory ID: A501571-18

File ID: 032715 RP1 Fe LTZ-098

Sampled: 03/15/15 12:00

Prepared: 03/20/15 08:48

Analyzed: 03/27/15 15:07

Solids: 0.00

Preparation: EPA 3005A

Initial/Final: 50 mL / 50 mL

Batch: 5C19031

Sequence: AA33175

Calibration: 1503102

Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum <i>exclude</i>	1320	1	E	6.80	25.0	45.0	EPA 6020A
7440-36-0	Antimony	<0.440	1	U	0.110	0.440	0.500	EPA 6020A
7440-38-2	Arsenic	<10.0	1	U	0.610	10.0	15.0	EPA 6020A
7440-39-3	Barium	21.1	1		2.00	8.00	10.0	EPA 6020A
7440-41-7	Beryllium	0.154	1	J	0.0940	0.370	0.800	EPA 6020A
7440-43-9	Cadmium	<4.00	1	U	0.110	4.00	8.00	EPA 6020A
7440-70-2	Calcium <i>exclude</i>	50500	1	E	36.0	1200	1750	EPA 6020A
7440-47-3	Chromium	<3.00	1	U	0.450	3.00	5.00	EPA 6020A
7440-48-4	Cobalt	0.495	1	J	0.210	0.840	1.00	EPA 6020A
7440-50-8	Copper	0.880 0.499 u	1	X	0.220	0.880	1.50	EPA 6020A
7439-89-6	Iron <i>exclude</i>	103 J	1	X	3.80	15.0	25.0	EPA 6020A
7439-92-1	Lead	1.29	1		0.160	0.600	1.00	EPA 6020A
7439-95-4	Magnesium	4740 J	1		30.0	120	200	EPA 6020A
7439-96-5	Manganese	11.5	1		0.320	1.28	2.00	EPA 6020A
7440-02-0	Nickel	1.36 u	1	✓	0.320	1.20	2.00	EPA 6020A
7440-09-7	Potassium <i>exclude</i>	2540 J	1	JQ	48.0	1750	3500	EPA 6020A
7782-49-2	Selenium	8.11	1		0.650	2.60	4.00	EPA 6020A
7440-22-4	Silver	<0.116	1	U	0.0290	0.116	0.225	EPA 6020A
7440-23-5	Sodium	4660 J	1		32.0	120	200	EPA 6020A
7440-28-0	Thallium	<0.230	1	U	0.0580	0.230	0.400	EPA 6020A
7440-62-2	Vanadium	<0.800	1	U	0.200	0.800	1.00	EPA 6020A
7440-66-6	Zinc	6.40 2.42 u	1	✓	1.60	6.40	10.0	EPA 6020A

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18 RE

**INORGANIC ANALYSIS DATA SHEET**  
**EPA 6020A**

UST1613-GW03-15A

Laboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-18RE1File ID: 032715\_RP1\_Fe\_LTZ-099Sampled: 03/15/15 12:00Prepared: 03/20/15 08:48Analyzed: 03/27/15 15:10Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration ( $\mu$ g/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	1340	10	B	68.0	250	450	EPA 6020A
7440-70-2	Calcium	52200	10	D	360	12000	17500	EPA 6020A
7439-89-6	Iron	100	1		3.80	15.0	25.0	EPA 6020A
7440-09-7	Potassium	2380	1	J	48.0	1750	3500	EPA 6020A

MW 5/21/15

## INORGANIC ANALYSIS DATA SHEET

UST1613-GW17-15A

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water

Laboratory ID: A501571-20

File ID: 032715\_RP1\_Fe\_LTZ-096

Sampled: 03/14/15 16:20

Prepared: 03/20/15 08:48

Analyzed: 03/27/15 14:59

Solids: 0.00

Preparation: EPA 3005A

Initial/Final: 50 mL / 50 mL

Batch: 5C19031

Sequence: AA33175

Calibration: 1503102

Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	188	1		6.80	25.0	45.0	EPA 6020A
7440-36-0	Antimony	<0.440	1	U	0.110	0.440	0.500	EPA 6020A
7440-38-2	Arsenic	<10.0	1	U	0.610	10.0	15.0	EPA 6020A
7440-39-3	Barium	24.7	1		2.00	8.00	10.0	EPA 6020A
7440-41-7	Beryllium	<0.370	1	U	0.0940	0.370	0.800	EPA 6020A
7440-43-9	Cadmium	<4.00	1	U	0.110	4.00	8.00	EPA 6020A
7440-70-2	Calcium	3880	1		36.0	1200	1750	EPA 6020A
7440-47-3	Chromium	<3.00	1	U	0.450	3.00	5.00	EPA 6020A
7440-48-4	Cobalt	<0.840	1	U	0.210	0.840	1.00	EPA 6020A
7440-50-8	Copper	2.85 $\mu$	1		0.220	0.880	1.50	EPA 6020A
7439-89-6	Iron <i>exclude</i>	281 $\mu$	1	X	3.80	15.0	25.0	EPA 6020A
7439-92-1	Lead	0.527	1	J	0.160	0.600	1.00	EPA 6020A
7439-95-4	Magnesium	2950 $\mu$	1		30.0	120	200	EPA 6020A
7439-96-5	Manganese	6.18	1		0.320	1.28	2.00	EPA 6020A
7440-02-0	Nickel	<1.20	1	U	0.320	1.20	2.00	EPA 6020A
7440-09-7	Potassium	541 $\mu$	1	X	48.0	1750	3500	EPA 6020A
7782-49-2	Selenium	<2.60	1	U	0.650	2.60	4.00	EPA 6020A
7440-22-4	Silver	<0.116	1	U	0.0290	0.116	0.225	EPA 6020A
7440-23-5	Sodium	4470 $\mu$	1		32.0	120	200	EPA 6020A
7440-28-0	Thallium	<0.230	1	U	0.0580	0.230	0.400	EPA 6020A
7440-62-2	Vanadium	0.695	1	J	0.200	0.800	1.00	EPA 6020A
7440-66-6	Zinc	12.1 $\mu$	1		1.60	6.40	10.0	EPA 6020A

20

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## INORGANIC ANALYSIS DATA SHEET

EPA 6020A

UST1613-GW17-15A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-20RE1File ID: 040215a\_DOD-028Sampled: 03/14/15 16:20Prepared: 03/20/15 08:48Analyzed: 04/02/15 13:48Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33263Calibration: 1504011Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-89-6	Iron	275	1		3.80	15.0	25.0	EPA 6020A

Mar 21/15

## INORGANIC ANALYSIS DATA SHEET

IR78-GW22-15A

EPA 6020A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-24File ID: 032715\_RP1\_Fe\_LTZ-136Sampled: 03/16/15 10:05Prepared: 03/20/15 08:48Analyzed: 03/27/15 17:28Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	96.7	1		6.80	25.0	45.0	EPA 6020A
7440-36-0	Antimony	2.91 <u>J</u>	1	<u>X</u>	0.110	0.440	0.500	EPA 6020A
7440-38-2	Arsenic	<10.0	1	U	0.610	10.0	15.0	EPA 6020A
7440-39-3	Barium	11.2	1		2.00	8.00	10.0	EPA 6020A
7440-41-7	Beryllium	<0.370	1	U	0.0940	0.370	0.800	EPA 6020A
7440-43-9	Cadmium	<4.00	1	U	0.110	4.00	8.00	EPA 6020A
7440-70-2	Calcium <u>exclude</u>	63900	1	E	36.0	1200	1750	EPA 6020A
7440-47-3	Chromium	0.540	1	J	0.450	3.00	5.00	EPA 6020A
7440-48-4	Cobalt	<0.840	1	U	0.210	0.840	1.00	EPA 6020A
7440-50-8	Copper <u>6.80 0.354 u</u>	1	Y	0.220	0.880	1.50	EPA 6020A	
7439-89-6	Iron <u>exclude</u>	108 <u>J</u>	1	<u>X</u>	3.80	15.0	25.0	EPA 6020A
7439-92-1	Lead	<0.600	1	U	0.160	0.600	1.00	EPA 6020A
7439-95-4	Magnesium	1660 <u>J</u>	1		30.0	120	200	EPA 6020A
7439-96-5	Manganese	6.40	1		0.320	1.28	2.00	EPA 6020A
7440-02-0	Nickel <u>1.20 0.824 u</u>	1	Y	0.320	1.20	2.00	EPA 6020A	
7440-09-7	Potassium	636 <u>J</u>	1	<u>X</u>	48.0	1750	3500	EPA 6020A
7782-49-2	Selenium	<2.60	1	U	0.650	2.60	4.00	EPA 6020A
7440-22-4	Silver	<0.116	1	U	0.0290	0.116	0.225	EPA 6020A
7440-23-5	Sodium	3330 <u>J</u>	1		32.0	120	200	EPA 6020A
7440-28-0	Thallium	<0.230	1	U	0.0580	0.230	0.400	EPA 6020A
7440-62-2	Vanadium	1.77	1		0.200	0.800	1.00	EPA 6020A
7440-66-6	Zinc	<6.40	1	U	1.60	6.40	10.0	EPA 6020A

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**INORGANIC ANALYSIS DATA SHEET**  
**EPA 6020A**

IR78-GW22-15A

Laboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-24RE1File ID: 032715\_RP1\_Fe\_LTZ-137Sampled: 03/16/15 10:05Prepared: 03/20/15 08:48Analyzed: 03/27/15 17:31Solids: 0.00Preparation: EPA 3005AInitial/Final: 50 mL / 50 mLBatch: 5C19031Sequence: AA33175Calibration: 1503102Instrument: OMICPMS1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7440-70-2	Calcium	65600	15	✓	540	18000	26200	EPA 6020A
7439-89-6	Iron	103	1		3.80	15.0	25.0	EPA 6020A

mrslu15



**INORGANIC ANALYSIS DATA SHEET**

IR78-GW63-15A

**EPA 7470A**Laboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-01File ID: Hg 5C19020 033 w-057Sampled: 03/14/15 15:30Prepared: 03/31/15 10:43Analyzed: 04/01/15 08:50Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration ( $\mu\text{g/L}$ )	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

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## INORGANIC ANALYSIS DATA SHEET

IR78-GW63D-15A

EPA 7470A

2

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-02File ID: Hg 5C19020 033 w-058Sampled: 03/14/15 15:35Prepared: 03/31/15 10:43Analyzed: 04/01/15 08:54Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

MW 5/21/15

## INORGANIC ANALYSIS DATA SHEET

IR78-GW64-15A

EPA 7470A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-03File ID: Hg 5C19020 033 w-059Sampled: 03/14/15 17:00Prepared: 03/31/15 10:43Analyzed: 04/01/15 08:57Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

Mr 8/21/15

## INORGANIC ANALYSIS DATA SHEET

IR78-GW73-15A  
4

EPA 7470A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground Water

Laboratory ID: A501571-04

File ID: Hg 5C19020 033 w-060

Sampled: 03/14/15 08:50

Prepared: 03/31/15 10:43

Analyzed: 04/01/15 09:00

Solids: 0.00

Preparation: EPA 7470A

Initial/Final: 30 mL / 30 mL

Batch: 5C19033

Sequence: AA33226

Calibration: 1504002

Instrument: OMHG1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

MS/2115

## INORGANIC ANALYSIS DATA SHEET

IR78-GW73D-15A

EPA 7470A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-05File ID: Hg\_5C19020 033 w-063Sampled: 03/14/15 08:55Prepared: 03/31/15 10:43Analyzed: 04/01/15 09:10Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration ( $\mu\text{g/L}$ )	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

mrs 5/21/15

## INORGANIC ANALYSIS DATA SHEET

IR78-RW08-15A

EPA 7470A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-15File ID: Hg 5C19020 033 w-064Sampled: 03/14/15 09:45Prepared: 03/31/15 10:43Analyzed: 04/01/15 09:13Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

mr sluzis

## INORGANIC ANALYSIS DATA SHEET

EPA 7470A

UST1613-GW03-15A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-18File ID: Hg 5C19020 033 w-065Sampled: 03/15/15 12:00Prepared: 03/31/15 10:43Analyzed: 04/01/15 09:16Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

mr sluis

20

## INORGANIC ANALYSIS DATA SHEET

EPA 7470A

UST1613-GW17-15A

Laboratory: ENCO Orlando

SDG: A501571-CTOWE86

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE86 MCB Camp Lejeune Site 78

Matrix: Ground WaterLaboratory ID: A501571-20File ID: Hg\_5C19020 033 w-066Sampled: 03/14/15 16:20Prepared: 03/31/15 10:43Analyzed: 04/01/15 09:19Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration ( $\mu$ g/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

mr shrub

**INORGANIC ANALYSIS DATA SHEET**

IR78-GW22-15A

**EPA 7470A**Laboratory: ENCO OrlandoSDG: A501571-CTOWE86Client: CH2M Hill, Inc. (CH025)Project: CTO-WE86 MCB Camp Lejeune Site 78Matrix: Ground WaterLaboratory ID: A501571-24File ID: Hg 5C19020 033 w-067Sampled: 03/16/15 10:05Prepared: 03/31/15 10:43Analyzed: 04/01/15 09:23Solids: 0.00Preparation: EPA 7470AInitial/Final: 30 mL / 30 mLBatch: 5C19033Sequence: AA33226Calibration: 1504002Instrument: OMHG1

CAS NO.	Analyte	Concentration ( $\mu\text{g/L}$ )	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	<0.0690	1	U	0.0230	0.0690	0.200	EPA 7470A

mr s/21/15